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Radical innovation sprint: New tools for well control and sampling (WASP)

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During oil and gas production on an unmanned platform, the offshore production supervisor (OSV) is in control of produced well fluids. Currently it can be difficult to continuously monitor the individual oil:water:gas well ratio. There could be a great potential to shut in wells which has a too high water-cut, but the OSV only has limited tools to pinpoint well stream composition.

The objective is to create a tool to reduce the water production and maximize oil production. It is intended for both manned and unmanned platforms. It must give on-line readings of oil/gas/water production rations and it must be able to automatically take consistent high pressure samples on demand, which can be used for understanding of the well conditions. *The device we call WASP* (well analysis + sampler). The information coming from the device is vital to the production. It forms the whole basis for the offshore production control and it feeds into reservoir models etc.

The auto-sampler will address the need for the operator to undertake more in-depth analysis and research of the well fluids. An added value could be that less water is produced which may lead to less corrosion and scaling by applying the WASP.

The objectives are reached by a design study which includes the following tasks: Design and development of 2D and 3D illustrations of the equipment, construction of Standard Operating Procedures for installing and operating the WASP and finally estimating the total prize of constructing the equipment.